

Vehicle Sectors

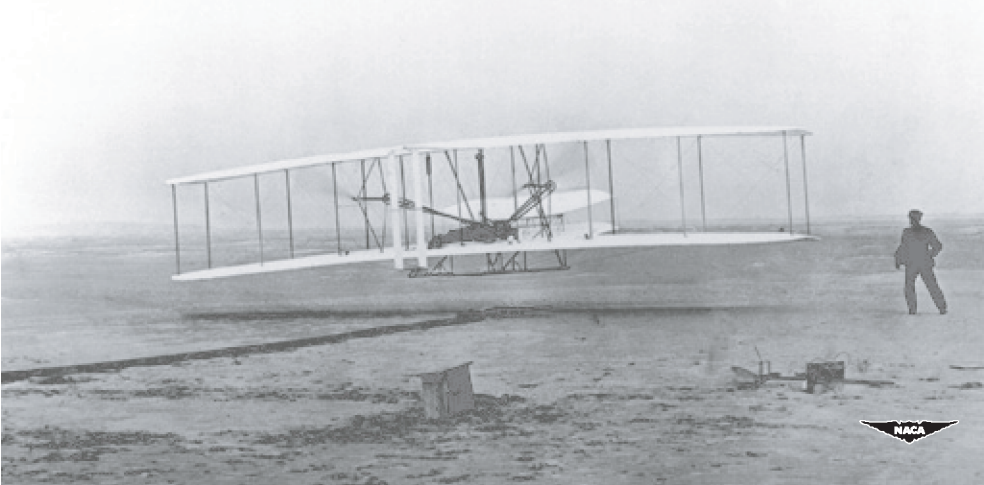
Five vehicle sectors (Subsonic Transport, Supersonic Aircraft, Personal Air Vehicles, Unmanned Air Vehicles, and Runway Independent Aircraft) provide a framework for researchers and analysts to guide technology investments, evaluate progress toward goals, advance technology, and provide systems capabilities assessments.



**NASA Vehicle Systems
Program Overview**
Summer 2003

The NASA Vision
To improve life here,
To extend life to there,
To find life beyond.

The NASA Mission
To understand and protect our home planet,
To explore the universe and search for life,
To inspire the next generation of explorers,
... as only NASA can.



Personal Air Vehicles



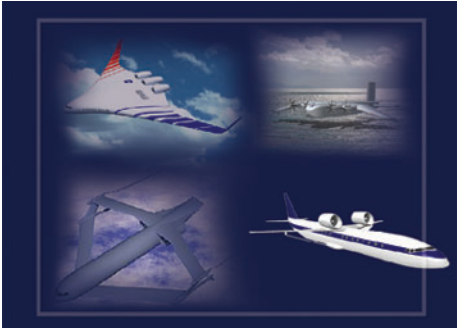
Unmanned Air Vehicles



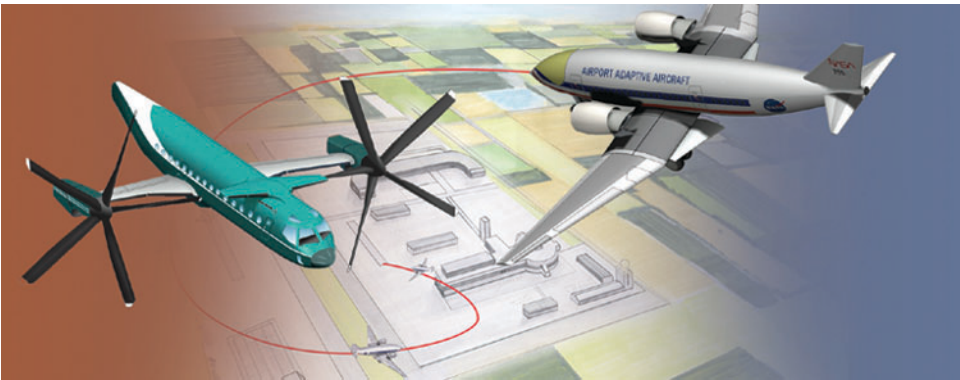
Supersonic Aircraft



Subsonic Transports



Runway Independent Aircraft



For more information:



Aerospace Technology Enterprise
<http://www.aerospace.nasa.gov>



Aerospace Technology Enterprise

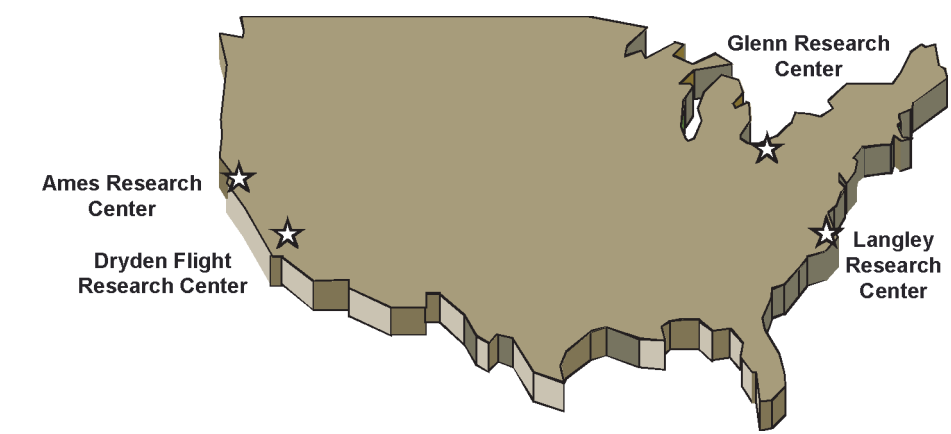
NASA has a new vision and mission with a single set of agency goals and objectives that encompass all six NASA enterprises (www.nasa.gov). Our success is measured by the extent to which our results improve the quality of life, and enable exploration and the growth of scientific knowledge. The Aerospace Technology Enterprise contributes to the NASA Vision and Mission through the development of pioneering tools, processes, and technologies. These in turn will enable future air and space transportation systems, access to space, and new science missions.

Primary Missions and Goals of the Aeronautics Technology Theme

- Enable a safer, more secure, efficient, and environmentally friendly air transportation system.
- Create a more secure world and improve the quality of life by investing in technologies and collaborating with other agencies, industry, and academia.
- Engage the public in shaping and sharing the experience of exploration and discovery.
- Enable revolutionary capabilities through new technology.

Aeronautics Technology is the sole administrator of the Agency's aeronautics investments. It functions in partnership with the DOD, the FAA, industry, and universities

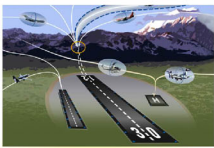
NASA Aeronautics Research Centers



Aeronautics Theme Objectives

- **Protect Air Travelers and the Public**—Decrease aircraft fatalities, reduce vulnerability to threats, and mitigate consequences of accidents and hostile acts
- **Protect the Environment**—Protect local environmental quality and the global climate by reducing aircraft noise and emissions
- **Increase Mobility**—Enable more people and goods to travel faster and farther, anywhere, anytime with fewer delays
- **Explore New Aerospace Missions**—Pioneer novel aerospace concepts to support earth and space science missions
- **Support National Security**—Leverage NASA aeronautics technology investments in partnership with DOD to support their role of protecting the Nation

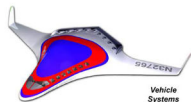
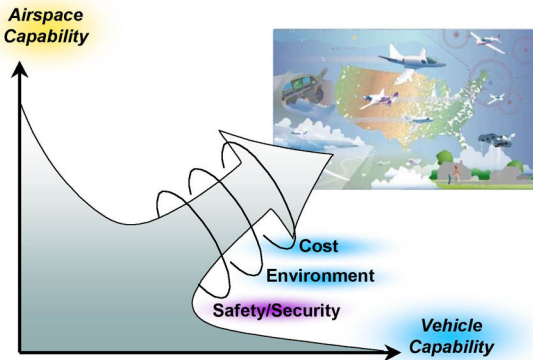
Aeronautics Technology—Three Integrated Programs



Airspace Systems



Aviation Safety & Security



Vehicle Systems

Vehicle Systems Program (VSP)

The VSP provides the technology foundation for future aerospace vehicles. It develops and demonstrates advanced airframe and spaceframe technology concepts and methodologies, provides advanced validated tools and techniques, responds quickly to critical national issues, and investigates the fundamental physics underlying the aerospace disciplines. Research covers the areas of conceptual design and systems analysis; aerodynamic and structural design and development; advanced propulsion system concepts and installations; airborne systems design and testing; and flight and systems demonstrations.

Program Components

- Vehicle Integration, Strategy and Technology Assessment (VISTA)
- Efficient Aerodynamic Shapes and Integration (EASI)
- Integrated Tailored Aerostructures (ITAS)
- Ultra Efficient Engine Technology (UEET)
- Quiet Aircraft Technology (QAT)
- Autonomous Robust Avionics (AuRA)
- Low Emissions Alternative Power (LEAP)
- Flight and Systems Demonstrations (FSD)